

REMARKS

Claims 1-48 are pending in the present application. Claims 1-5, 8, 9, 12, 14-16, 19-21, 23, 24, 26, 28-33, 36, 37, 40-42, 44, 45, and 47 are rejected. Claims 6, 7, 10, 11, 13, 17, 18, 22, 25, 27, 34, 35 and 38 are objected to. Claims 39, 43, 46 and 48 were not addressed in the summary of the present office action but are indicated as allowable in the text of the Office Action (p.52). Therefore, Applicants have proceeded under the assumption that Claims 39, 43, 46 and 48 include allowable subject matter.

Claim Objections

Claim 38 is objected to for an improper dependency. Claim 38 has been amended herein to correct this informality.

Claim Rejections

35 U.S.C. §102

Claims 19 and 26 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,201,829 to Schneider. As to Claim 19, Examiner avers that Schneider discloses a programmable multi-gigabit transceiver. Applicants respectfully disagree.

Applicants claim “a programmable multi-gigabit transceiver comprises” (in addition to other elements): “[a] control module operably coupled to produce the transmit setting and the receive setting based on transceiver operational requirements.” The transceiver of Schneider is not a “programmable multi-gigabit transceiver” (see Applicants’ Specification, at least paragraphs [0028] and [0029]). However, Applicants have incorporated elements of dependent Claim 27, acknowledged by Examiner as allowable, into Claim 19 in order to expedite the examination process.

Schneider does not teach a transceiver that is field-programmable and comprises a control module that further functions to generate the receive setting to enable, logically disable, or physically disable at least one element of a programmable PMA receiver module of the receiver section, generate the transmit setting to enable,

logically disable, or physically disable at least one element of a programmable PMA transmit module of the transmit section, generate the transmit setting to enable, logically disable, or physically disable at least one element of a programmable PCS transmit module of the transmit section; and generate the receive setting to enable, logically disable, or physically disable at least one element of a programmable PCS receive module of the receive section, as claimed in Claim 19. Claim 19 is therefore allowable and its rejection should be withdrawn. Claim 26 depends from allowable Claim 19 and its rejection is now moot. The rejection of Claim 26 should likewise be withdrawn.

35 U.S.C. §103

Claims 1-5, 8, 9, 12, 14-16, 20, 21, 23, 24, 26-33, 36, 37, 40-42, 44, 45 and 47 are rejected as obvious under 35 U.S.C. §103.

Claims 1, 2, 4, 5, 8, 9, 20, 21, 23 and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schneider in view of U.S. Patent Application 2001/0009553 by Homann.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The cited art does not teach or suggest all of Applicants' claim limitations.

Regarding Claim 1, Examiner states that Schneider discloses "a programmable multi-bit transceiver" and that Homann discloses a physical coding sublayer (PCS). However, at least for the reasons shown above, the transceiver of Schneider is not a "programmable multi-gigabit transceiver" as is claimed in Applicants' application. Applicants must respectfully disagree with Examiner's interpretation of Schneider's transceiver as a "programmable multi-gigabit transceiver."

Schneider teaches a transceiver able to operate in different modes based on an external MODE signal. While Schneider discloses a transceiver enabled to transmit at a frequency of 1.065 GHz and persons of ordinary skill in the art understand a multi-

gigabit transceiver to be operating at 2 GHz and above, a “programmable multi-gigabit transceiver” is far more than Schneider's mode-shifting device. As claimed in Claim 1, Applicants' “programmable multi-gigabit transceiver” comprises a control module operably coupled to generate the programmed serialization setting, the programmed deserialization setting, the receive interface setting, the transmit interface setting, and the logic interface setting based on a desired mode of operation for the programmable multi-gigabit transceiver. These limitations are not disclosed in either Schneider or Homann. Therefore, Claim 1 is not made obvious by the cited art under 35 U.S.C. §103(a) and its rejection should be withdrawn.

Claims 2, 4, 5, 8 and 9 depend from and further limit Claim 1. Therefore, their respective rejections are moot and should be withdrawn.

Claims 20, 21, 23 and 24 depend from Claim 19. Claim 19 is shown to be allowable in the discussion above. Claims 20, 21, 23 and 24, therefore, are also allowable and their rejections should be withdrawn.

Claims 12, 14 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schneider and Homann in view of U.S. Patent Application 2004/0012447 by Nagashi.

Regarding Claim 12: in the interest of expediency, Claim 12 has been amended to incorporate the allowable limitations of Claim 13. As amended, Claim 12 is allowable. Claims 14 and 16 depend from Claim 12 and are, at least for the same reasons as Claim 12, allowable as well. The rejections of Claims 12, 14 and 16 should be withdrawn.

Claim 15 is rejected under 35 U.S.C. §103(a) as being unpatentable over Schneider, Homann and Nagashi in further view of an uncited reference by Phanse. Claim 15, however, depends from Claim 12. For at least the same reasons as Claim 12, Claim 15 is allowable and its rejection should be withdrawn.

Claims 28, 40 and 47 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schneider in view of U.S. Patent Application 2001/0055331 by Agazzi et al.

As to Claim 28, Examiner states that Schneider discloses a programmable logic device having a 'programmable multi-gigabit transceiver" but does not disclose a plurality of such transceivers. Examiner further states that Agazzi discloses a multi-gigabit transceiver having a plurality of multi-gigabit transceivers. However, at least for reasons well documented above, Applicants assert that Schneider and Agazzi, whether alone or in combination, fail to disclose a programmable logic device having a plurality of programmable multi-gigabit transceivers, programmable logic fabric and a control module operably coupled to produce the plurality of transceiver settings based on a desired mode of operation of the programmable logic device as claimed by Applicant. Applicants' Claim 28, therefore distinguishes over the cited art and is allowable. The rejection of Claim 28 should be withdrawn.

Claims 40 and 47 depend from and further limit allowable Claim 28. As such, the rejections of Claims 40 and 47 are moot and should be withdrawn.

Claims 29-33, 36, 37, 41, 42 and 44 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schneider and Agazzi as applied to Claims 28 and 40 above and further in view of Homann. However, Claims 28 and 40 are shown above to be allowable, rendering moot the rejections of Claims 29-33, 36, 37, 41, 42 and 44. the rejections of Claims 29-33, 36, 37, 41, 42 and 44 should, therefore, be withdrawn.

Claim Objections

Claims 6, 7, 10, 11, 13, 17, 18, 22, 25, 27, 34, 35 and 38 are objected to as being dependent from rejected base claims. However, Claims 6, 7, 10 and 11 depend from Claim 1 which has been shown to be allowable, above. The thus-mooted objections to 6, 7, 10 and 11 should, therefore, be withdrawn. Claim 13 has been cancelled, making its rejection moot. Claims 17 and 18 depend from allowable Claim 12, making their respective objections moot. Claims 22 and 25 depend from allowable Claim 19, making their objections moot. Claim 27 has been cancelled. Claims 34 and

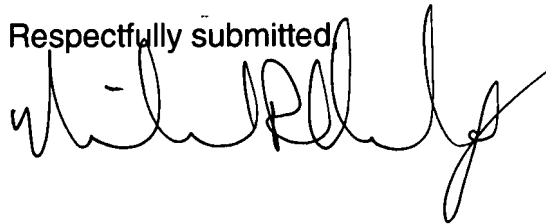
35 depend from allowable Claim 28. Thus, these objections are moot as well. Claim 38 has been amended to show its correct dependency from Claim 36. All claim objections are now shown to be moot or have been accommodated by amendment. Applicants respectfully request that the objections to Claims 6, 7, 10, 11, 13, 17, 18, 22, 25, 27, 34, 35 and 38 be withdrawn.

CONCLUSION

Claims 1-48 are pending in the present Office Action. Claims 12, 19 and 38 have been amended. Claims 13 and 27 have been cancelled. All remaining claims are believed to be in condition for allowance.

Reconsideration and a notice of allowance are respectfully requested in view of the amendments and remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on June 29, 2007.

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